REMARKS

In the Office Action mailed October 4, 2007: claims 25 and 35 were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. And claims 17-36 were rejected under 35 U.S.C. § 102(e) as being anticipated by Sheplak et al.

In order to discuss the 35 U.S.C. § 112, second paragraph, rejection, a telephonic interview was conducted with Examiner Lao on December 17, 2007. The courtesies extended by Examiner Lao in granting and conducting this interview are greatly appreciated. During this interview, Applicants' undersigned representative asked Examiner Lao to explain the basis for this rejection, and accordingly, Examiner Lao indicated that the basis for this rejection is that claims 17 and 27 correspond to the embodiment represented by Fig. 17, which embodiment does not include the noise detector recited in claims 25 and 35. That is, though a noise detector 10 is shown in the figures, it is shown in Figs. 14 and 39, which correspond to embodiments different than the one represented by claims 17 and 27. Thus, this rejection apparently was intended to be based on 35 U.S.C. § 112, first paragraph.

In any event, in reply to the position taken by the Examiner, the Examiner's attention is respectfully directed to paragraph [0077] which states that the noise reduction apparatus according to the second embodiment, i.e. that represented by Fig. 17, may additionally include the noise detector described in the first embodiment, i.e. noise detector 10 shown in Fig. 14. Thus, according to this description in paragraph [0077] there is support for the embodiment represented by Fig. 17 to further include noise detector 10. Accordingly, it is respectfully submitted that claims 25 and 35 are in full compliance with 35 U.S.C. § 112, first and second paragraph, whereby the current 35 U.S.C. § 112, second paragraph, rejection of these claims should be withdrawn.

The 35 U.S.C. § 102(e) rejection based on Sheplak et al. is respectfully traversed for the following reasons.

Claims 17 and 27 each recite a noise reduction apparatus that requires

> **structure for generating *enclosed spaces*;**
> **control sound sources for radiating sound into the enclosed spaces;**
> ***sound detectors to be placed within the enclosed spaces, respectively*, and;**
> **a control arrangement.**

Thus, as recited in claims 17 and 27, the space for noise reduction is enclosed, whereby a problem of causing mutual interference, between sound emitted in one space for noise reduction and sound emitted in a neighboring space for noise reduction, can be solved. In other words, because each space is enclosed, sound emitted within this space is not leaked to the outside, whereby such sound cannot be detected by the sound detector in a neighboring space. Thus, it is made possible to more effectively reduce noise.

Additionally, since each space for noise reduction is enclosed, in order to unfailingly reduce noise through controlling performed by the control arrangement, it is required to dispose a corresponding sound detector within this space. In other words, since a control sound source emits sound into this enclosed space, if the corresponding sound detector were disposed outside of the space, it would be difficult to control the control sound source based on a detection result of the sound detector, thereby making it impossible to unfailingly reduce noise. By contrast, if the sound detector is disposed within the space, as recited in claims 17 and 27, the control arrangement controls the control sound source so as to minimize sound to be detected by the sound detector, thereby allowing an easy and accurate control for noise reduction.

The noise reduction apparatus as recited in claims 17 and 27 is different from that of Sheplak et al. with regard to the space for noise reduction being enclosed or not enclosed, and with regard to a position(s) where a sound detector(s) is disposed. In this regard, each space for noise reduction in the present invention is enclosed, whereas a corresponding space in Sheplak et al. is not enclosed. This is so because of the existence of passages 1712 and 1752 as shown in Fig. 17 of Sheplak et al. Additionally, claims 17 and 27 require a that a sound detector is to be within each enclosed space, i.e. there a plural sound detectors, whereas in Sheplak et al. there is but a single sensor 1762, and this sensor is not disposed within either of chamber 1708 or chamber 1748.

Thus, because each space for noise reduction in Sheplak et al. is not enclosed, and because there is not a sound detector within each of these spaces, neither claim 17 nor claim 27 is anticipated by Sheplak et al.

Additionally, in Sheplak et al., when noise is reduced by resonator 1701 or 1751 since sensor 1762 is disposed outside of chamber 1708 or chamber 1748, in order to unfailingly reduce noise, passage 1712 or passage 1752 cannot be sealed up, whereby neither chamber 1708 nor chamber 1748 can be enclosed. If the resonator 1701, 1751 of Sheplak et al. had no passage 1712, 1752 such that chamber 1708, 1748 were enclosed, a space in which sound is emitted from the control sound source (including diaphragm 1714, 1754 and piezoelectric material 1716, 1756) and a space in which the sensor 1762 detects sound would be partitioned. Therefore, even if control were to be performed so as to minimize sound detected by the sound detector, this control for noise reduction cannot be accurately performed. Accordingly, because enclosing chamber 1708, 1748 of Sheplak et al. would result in an inability to accurately perform noise reduction, it would not have been obvious to one having ordinary skill in the art to enclose either of chambers 1708 and 1748.

Furthermore, the present invention and Sheplak et al. are totally different from each other with regard to a principle of reducing noise. That is, in the present invention, the control sound sources emit sound so as to minimize sound detected by the plurality of sound detectors. In other words, control sound which reduces noise detected by the sound detectors is emitted. By contrast, in Sheplak et al. noise is absorbed by utilizing resonance in the chambers 1708 and 1748.

As recited in claims 17 and 27, sound is emitted from the control sound sources so as to minimize sound detected by the sound detectors, thereby reducing noise. Therefore, regardless of a frequency of noise, the noise reduction apparatus as recited in claims 17 and 27 is capable of reducing noise by emitting control sound of a frequency in accordance with the frequency of the noise. In other words, with the claimed noise reduction, an effect of reducing noise in a wide range of frequencies can be obtained. To the contrary, with the resonator 1701, 1751 of Sheplak et al., noise is absorbed by utilizing resonance. A plate 1706, 1746 at the bottom of chamber

1708, 1748 is to provide two frequency peaks of resonance (originally, there is one frequency peak of resonance). The plate 1706, 1746 is not to emit sound so as to minimize sound detected by the sound detectors.

The above demonstrates that neither claim 17 nor claim 27 is anticipated by nor rendered obvious over Sheplak et al. Thus, claims 17-36 are allowable.

In view of the above amendments and remarks, it is respectfully submitted that the present application is in condition for allowance and an early Notice of Allowance is earnestly solicited.

If after reviewing this Amendment, the Examiner believes that any issues remain which must be resolved before the application can be passed to issue, the Examiner is invited to contact the Applicants' undersigned representative by telephone to resolve such issues.

Respectfully submitted,

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